

Name of the Student: _____

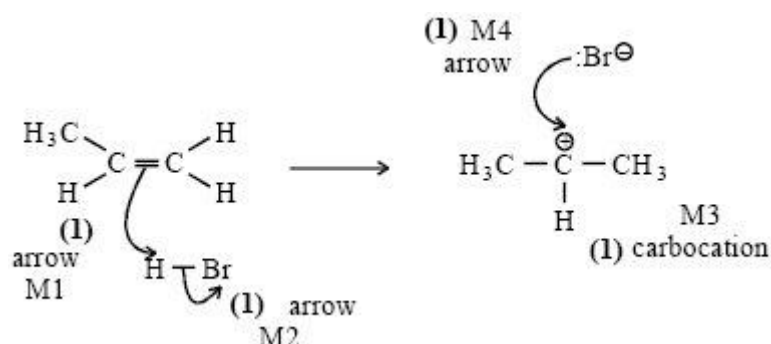
Max. Marks : 26 Marks

Time : 26 Minutes

Mark Schemes

Q1.

(a) (i)



If wrong carbocation, lose structure mark

If wrong alkene, lose structure mark

Can still score $\frac{3}{4}$ i.e. penalise M3

Penalise M2 if polarity included incorrectly

no bond between H and Br

bond is shown as $\text{---}\div\text{---}$ or $\text{---}\text{---}$

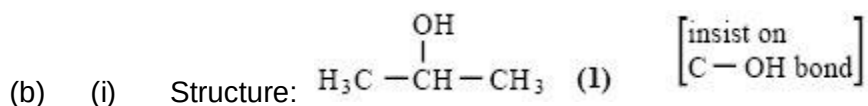
4

(ii) $\oplus$ $\text{CH}_3\text{CH}_2\text{CH}_2$

credit secondary carbocation here if primary carbocation has been used in (i)

Ignore attack on this carbocation by $\ddot{\text{Br}}^-$

1



1

Name: propan-2-ol

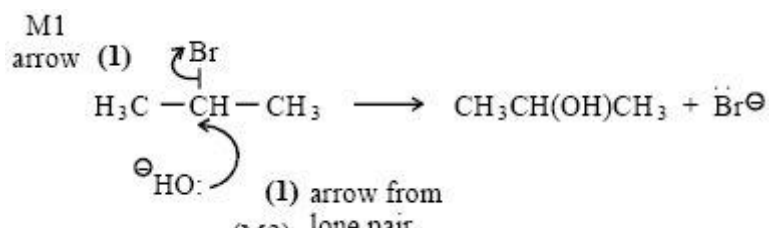
Not 2-hydroxypropane

1

(ii) Name of mechanism: nucleophilic substitution (both words)(NOT $\text{S}_{\text{N}}1$ or $\text{S}_{\text{N}}2$)

1

Mechanism:



penalise incorrect polarity on C-Br (M1)
Credit the arrows even if incorrect haloalkane
If $\text{S}_{\text{N}}1$, both marks possible

2

(c) (i) elimination

1

(ii) base

OR proton acceptor

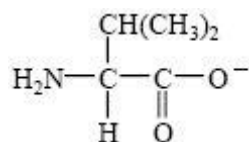
NOT nucleophile

1

[12]

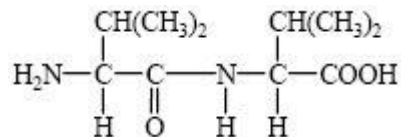
Q2.

(a) (i)



1

(ii)

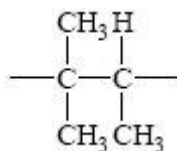


1

(iii) hydrogen bonding (do not allow H-bonding) QWC
do not penalise any error twice.

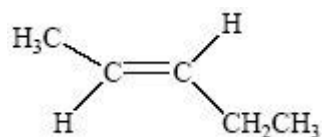
1

(b) (i)



1

(ii)

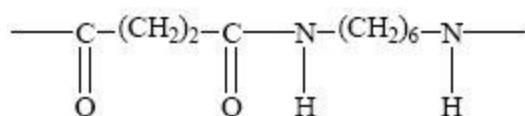


1

(iii) Isomer must be saturated or must not contain a double bond

1

(c)



2

(d) (i) heat/reflux with aqu NaOH

1

poly(alkene) is inert/ no reaction

1

polyamide is hydrolysed (or undergoes hydrolysis)
to form acid salt and alcohol QWC

1

(ii) e.g combustion

1

heat energy produced

1

toxic gases produced

1

[14]